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March 13, 2002



Acquisition

Results of the Defense Logistics
Agency Strategic Supplier Alliance
with Honeywell International,
Incorporated
(D-2002-059)

Department of Defense
Office of the Inspector General

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Acronyms

CLINs	Contract Line Item Numbers
DCAA	Defense Contract Audit Agency
DCMA	Defense Contract Management Agency
DLA	Defense Logistics Agency
DSCC	Defense Supply Center Columbus
DSCP	Defense Supply Center Philadelphia
DSCR	Defense Supply Center Richmond
RIT	Rapid Improvement Team



INSPECTOR GENERAL
DEPARTMENT OF DEFENSE
400 ARMY NAVY DRIVE
ARLINGTON, VIRGINIA 22202-4704

March 13, 2002

MEMORANDUM FOR UNDER SECRETARY OF DEFENSE FOR ACQUISITION,
TECHNOLOGY, AND LOGISTICS
DIRECTOR, DEFENSE CONTRACT AUDIT AGENCY
DIRECTOR, DEFENSE LOGISTICS AGENCY

SUBJECT: Report on the Results of the Defense Logistics Agency Strategic Supplier
Alliance with Honeywell International, Incorporated (Report No. D-2002-059)

We are providing this report for your information and use. No written response to this report was required, and none was received.

We appreciate the courtesies extended to the review staff. Questions on the report should be directed to Mr. Henry F. Kleinknecht at (703) 604-9324 (DSN 664-9324) (hkleinknecht@dodig.osd.mil) or Mr. Patrick J. Nix at (703) 604-9332 (DSN 664-9332) (pnix@dodig.osd.mil). See Appendix C for the report distribution. The team members are listed inside the back cover.

David K. Steensma
David K. Steensma
Acting Assistant Inspector General
for Auditing

Office of the Inspector General, DoD

Report No. D-2002-059

(Project No. D1999CF-0077.001)

March 13, 2002

Results of the Defense Logistics Agency Strategic Supplier Alliance with Honeywell International, Incorporated

Executive Summary

Introduction. Over the past 5 years, the Office of the Inspector General, DoD, has worked closely with the Defense Logistics Agency (DLA) and other DoD Components to achieve fair pricing for sole-source items. We have issued a series of reports involving pricing of both commercial and noncommercial spare parts. Two of the reports discuss sole-source commercial and noncommercial spare parts procured from AlliedSignal Incorporated. In response to the reports, the Director, DLA and the Deputy Under Secretary of Defense (Acquisition Reform (renamed Director for Acquisition Initiatives)) in June 1999, chartered a rapid improvement team to develop a new strategic supplier alliance relationship between DLA and AlliedSignal. In December 1999, AlliedSignal and Honeywell merged, forming a new company, Honeywell International, Incorporated (Honeywell). The team included representatives from Honeywell; DLA; Defense Procurement; the Defense Contract Audit Agency; the Defense Contract Management Agency; the Office of General Counsel, DoD; the Office of the Inspector General, DoD; and the Director for Acquisition Initiatives.

Objective. The objective was to report the results of the strategic supplier alliance between DLA and Honeywell. Specific objectives focused on wait time savings, inventory reductions, and potential cost savings associated with shifting from the current method of support to a more tailored approach.

Results. The strategic supplier alliance resulted in three primary contracts for sole-source Honeywell items (catalog, build-to-order, and replenishment). The contracts were designed to address the nature of the demand for different customers and the supplier economics of responding to those demands. As of September 2001, the 3 contracts covered 594 items with an annual demand of over \$26 million.

The DLA/Honeywell strategic supplier alliance contracts provide a significantly more efficient and economical procurement and logistics support strategy for sole-source spare parts than earlier commercial or noncommercial order strategies. As a result, DLA has been able to improve wait time, reduce inventory, and lower prices for its customers. Inventory has already been reduced by \$9.8 million for the first 221 contract line items on the catalog contract. Customer prices will be reduced by \$59 million for the first 594 items placed on the 3 alliance contracts over the 12-year period of performance (catalog 322 items--\$50.7 million, build-to-order 256 items--\$4.2 million, and replenishment 16 items--\$4.1 million). Meanwhile, both DLA and

Honeywell will be able to realize procurement administrative efficiencies from the long-term contracts, and Honeywell will increase its return on investment by providing additional services and earn higher profits if costs are reduced. As of December 2001, over 1,000 parts had been priced under the strategic supplier alliance, and the goal for 2002 is to price an additional 1,500 to 2,000 parts.

The Director, DLA and Director for Acquisition Initiatives are commended for their efforts in organizing the rapid improvement team that resulted in the strategic supplier alliance with Honeywell. In addition, the DLA contracting officers and representatives on the DoD pricing team from both DLA and the Defense Contract Audit Agency are commended for their efforts and assistance, which have resulted in shortened wait times, reduced inventory, and lower prices for DoD.

Honeywell management is also commended for its cooperation in providing the DoD pricing team access to cost data for both commercial and noncommercial sole-source items. Honeywell management also allowed the cost-based pricing process to further improve with "alpha or one-pass pricing." The one-pass pricing process allows DoD and Honeywell pricing teams to concurrently reach agreement on cost elements in real time and provides a unique opportunity for DoD to directly impact judgmental decisions made when pricing items. Honeywell management's agreement to use the one-pass pricing process dramatically improved the level of trust and cooperation between both parties.

Management Comments. We provided a draft of this report on February 1, 2002. No written response was required, and none was received. Therefore, we are publishing this report in final form.

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Background

Spare Parts Audits and Reviews. Over the past 5 years, the Office of the Inspector General, DoD, has worked closely with the Defense Logistics Agency (DLA) and other DoD Components to achieve fair pricing for sole-source items. We have issued a series of reports involving pricing of both commercial and noncommercial spare parts. Two of the reports discuss sole-source commercial and noncommercial spare parts procured from AlliedSignal, Incorporated. In December of 1999, AlliedSignal and Honeywell merged, forming a new company, Honeywell International, Incorporated (Honeywell). A third report discusses initial results of the strategic supplier alliance with Honeywell.

DLA Price Trend for Commercial Items. In response to audit reports showing problems with prices for commercial items, Subsection 803(c) of the Strom Thurmond National Defense Authorization Act for FY 1999 requires DoD to prepare a report on price trends for commercial items. The April 1, 2000, "Report on Price Trend Analysis of Exempt Commercial Items," shows the overall price increases for DLA commercial items. The report shows that DLA prices for sole-source commercial items had increased by 23 percent over a 6-year period from FY 1993 through FY 1999. In contrast, aggregate cost growth for all commercial items was slightly over 12.3 percent for the same period.

Strategic Supplier Alliance. In June 1999, the Deputy Under Secretary of Defense (Acquisition Reform) (renamed Director for Acquisition Initiatives) and the Director, DLA chartered the development and deployment of a pilot program to test the framework and tools for improving the total value for military customers and industry stockholders. The strategic supplier alliance with Honeywell employed a rapid improvement team (RIT) as the catalyst to drive the development and execution of plans designed to improve the total DoD supplier relationship. The RIT, facilitated by a representative from Leap Technologies in conjunction with the DoD Change Management Center, is an integrated process team with short timeframes to accomplish goals. The RIT included representatives from Honeywell; DLA; the Office of the Director, Defense Procurement; the Defense Contract Audit Agency (DCAA); the Defense Contract Management Agency (DCMA); the Office of General Counsel, DoD; the Office of the Inspector General, DoD; and the Director for Acquisition Initiatives. The RIT also included representatives from the Army, Navy, and Air Force. Numerous RIT meetings were convened to develop an overall approach and execution plan for the strategic supplier alliance between DLA and Honeywell. The meetings were frequently contentious, primarily over issues relating to commercial item determinations, cost data, cost accounting standards, and cost accounting standards waivers; however, the issues were eventually resolved to the mutual satisfaction of the team.

Alternative Pricing Approaches. The RIT devoted significant efforts to evaluating the advantages and disadvantages of alternative pricing approaches. Regarding the DLA/Honeywell strategic alliance, the RIT determined that because all the items were considered sole-source, competitive pricing was not an option. Also, market (commercial) pricing was not practical because there was no commercial market to compare like or closely similar products to

establish baseline prices with a high level of confidence. The RIT believed that a high level of confidence in pricing was necessary due to the potential length of the contracts (12 years); therefore, reducing risk was key to any pricing approach. Accordingly, the RIT decided on the cost build-up approach where Honeywell would use cost-based pricing in accordance with its approved estimating system to price items. Honeywell agreed to make cost data (uncertified) available for review by representatives from DCAA and the DCMA to support cost realism. The Government agreed to perform an analysis of the contractor's cost only once when items were placed on contract.

Honeywell Position on Cost Accounting Standards. Honeywell had stated that it would not accept a Cost Accounting Standards covered contract under the strategic supplier alliance for both military-unique and commercial items because the nature of the teaming arrangement is commercial. For the same items, the practice before the alliance contracts was to issue individual purchase/delivery orders for each part number. This required order-by-order negotiations of price and significantly longer administrative lead times for delivery. In a June 23, 2000, memorandum, Honeywell stated that since January 1, 1998, Honeywell's Defense and Space Division had received 10,629 purchase/delivery orders from DLA and that only 25 (or 0.2 percent) had included the Cost Accounting Standards clause. This was because the delivery orders were usually under \$500,000. Therefore, the Government decision to grant a Cost Accounting Standards waiver was reasonable.

Cost Accounting Standards Waiver. On May 26, 2000, the Under Secretary of Defense for Acquisition, Technology, and Logistics waived the Cost Accounting Standards requirements for the catalog contract with Honeywell. The Under Secretary commented that the Cost Accounting Standards waiver would facilitate civil-military integration by permitting DLA to enter into a pilot strategic supplier alliance with Honeywell that would test Honeywell's commercial supply methodology in the DoD marketplace.

Objective

The objective was to report the results of the strategic supplier alliance between DLA and Honeywell. Specific objectives focused on wait time savings, inventory reductions, and potential cost savings associated with shifting from the current method of support to a more tailored approach. See Appendix A for a discussion of the review scope and methodology, and Appendix B for prior coverage.

Strategic Supplier Alliance Results

The DLA/Honeywell strategic supplier alliance contracts provide a significantly more efficient and economical procurement and logistics support strategy for sole-source spare parts than earlier commercial or noncommercial order strategies. The improvements were achieved because items were:

- sorted in best-value purchasing environments based on demand,
- procured on long-term contracts (catalog, built-to-order, and replenishment), and
- priced using “alpha or one-pass” cost-based pricing.

As a result, DLA has improved wait time, reduced inventory, and lowered prices for its customers. DLA-held inventory has been reduced \$9.8 million for the first 221 contract line items on the catalog contract. Customer prices will be reduced by \$59 million for the first 594 items placed on the 3 alliance contracts over the 12-year period of performance (catalog 322 items--\$50.7 million, build-to-order 256 items--\$4.2 million, and replenishment 16 items--\$4.1 million). Meanwhile, both DLA and Honeywell will realize procurement administrative efficiencies from the long-term contracts, and Honeywell will increase its return on investment by providing additional services and earn higher profits if costs are reduced.

Earlier Order Strategies

In 1998 and 1999, the Inspector General, DoD, issued two reports that discussed problems relating to both commercial and noncommercial spare parts procured from Honeywell (formerly AlliedSignal).

Report No. 99-026, “Commercial Spare Parts Purchased on a Corporate Contract,” October 30, 1998. The audit showed that in FYs 1996 and 1997 DLA supply centers paid AlliedSignal higher than fair and reasonable prices for commercial spare parts compared to the noncommercial prices paid to AlliedSignal in previous years. The audit determined that DLA paid a 54.5 percent premium for commercial parts from AlliedSignal. Included in the higher commercial prices were costs for AlliedSignal to manage, stock, and deliver the items directly to DoD users, which lowers the total ownership cost for the Government and allows DLA to take full advantage of AlliedSignal’s commercial capabilities. The effective implementation by DLA of the commercial buying practices and direct vendor delivery stipulated in the contract (SPO500-96-D-9502) would have helped offset the higher prices. Instead, DLA

paid the premium and then purchased the parts for inventory and charged its customers the full cost recovery rates for inventory management and delivery of the items, thus increasing its customers’ costs.

Report No. 99-218, "Sole-Source Noncommercial Spare Parts Orders on a Basic Ordering Agreement," July 27, 1999. The audit showed that DLA supply centers paid about \$4.9 million (or 18 percent) more than fair and reasonable prices for the \$32.2 million of spare parts procured from AlliedSignal. The audit showed that DLA supply centers could reduce total ownership costs for their customers by using a combination of both cost- and price-based acquisition tools and negotiating long-term commercial type contracts with price improvements.

Best Value Purchasing Environments

The RIT used an approach that sorted items based on the nature of the demand for different customers and the supplier economics of responding to those demands. Customer demands represent the order size and frequency as well as the predictability of the demand. The RIT employed a demand environment map, which became the cornerstone for the alliance relationship and the catalyst for moving from a transaction-based approach to contracting to a strategic alliance approach. In essence, demand and purchasing requirements were matched with supplier capabilities to leverage buying power and improve production economies of scale. For example, those items with stable demand and multiple customers (five or more) fell into the "catalog demand" environment. Those items with stable demand and one dominant customer fell into the "replenishment demand" environment, and those items with unstable demand fell into either the "rapid response" or "build-to-order" demand environments.

As the DLA/Honeywell strategic supplier alliance evolved, the RIT determined that three separate contracts were required, one for each of the purchasing demand environments. Build-to-order and rapid response items were determined to be similar enough to be purchased on the same contract, while separate contracts were required for catalog and replenishment demand items.

Figure 1 shows the purchasing demand environment map employed by the DLA/Honeywell RIT and the characteristics for each environment.

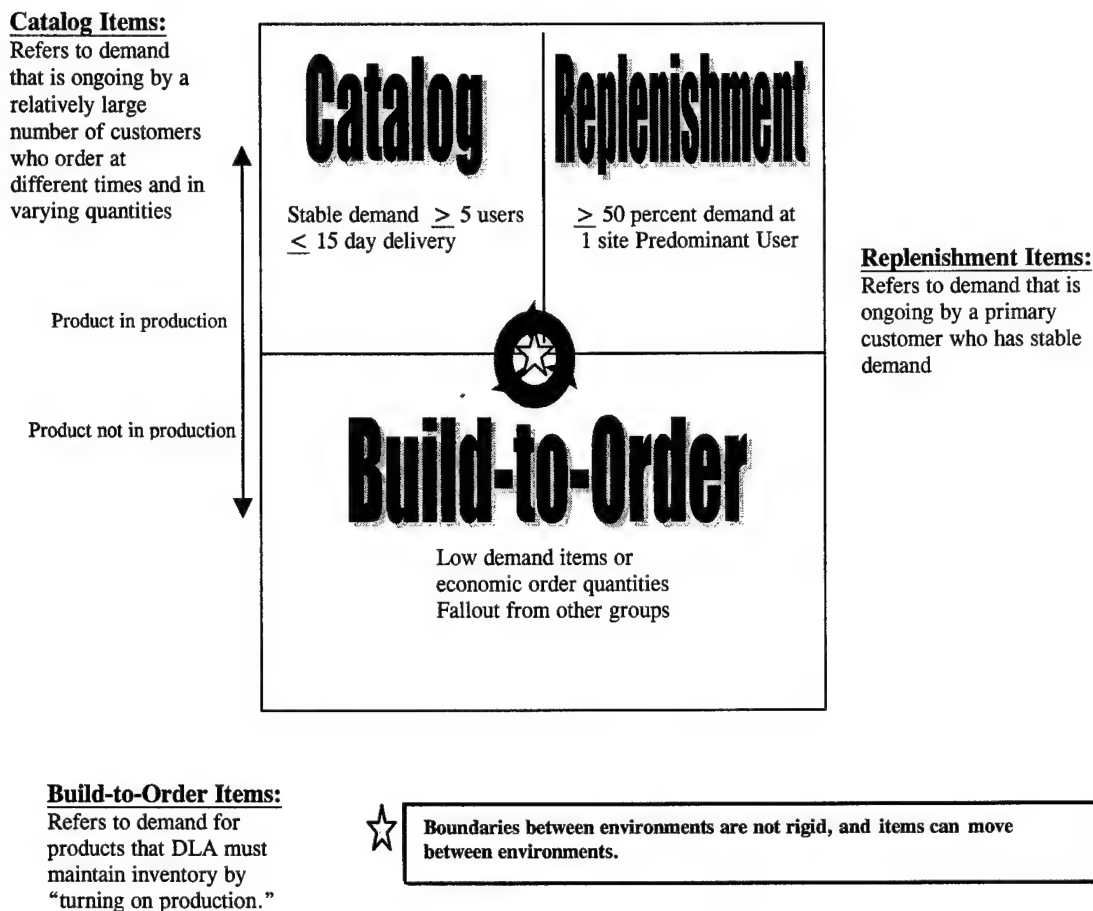


Figure 1. Purchasing Demand Environment Map

Long-Term Contracts

DLA has awarded Honeywell three long-term contracts (catalog, build-to-order, and replenishment) under the strategic supplier alliance. As of September 2001, a total of 594 items were on the 3 contracts with about 400 additional parts priced and in the process of being placed on contract. DLA and Honeywell goals for 2002 are to add an additional 1,500 to 2,000 parts to the contracts.

Catalog Contract. On June 2, 2000, the Defense Supply Center Richmond (DSCR) awarded a requirements type contract (SPO410-00-D-0007) to

Honeywell for “catalog” items. As of September 14, 2001, 322 parts¹ were on contract with an annual demand value of about \$18.1 million. The contract includes a base period of 3 years with two 3-year option periods. The contract also has award term provisions that allow the contractor to earn three additional 1-year periods for a total possible contract length of 12 years. The estimated contract value is \$120 million. The contract specifies direct vendor delivery of parts to DLA and its customers, and guarantees shipment within 15 days after electronic receipt of an order by Honeywell. The contract also requires 24-hour delivery when aircraft are grounded. As part of the alliance, the Government agreed to perform a baseline analysis of the contractor’s cost data only once, when an item is placed on the contract. In turn, Honeywell agreed to price improvement savings (price reductions) totaling 10.5 percent starting the fourth year of the contract and continuing for a 6-year period. Prices for the first 3 years of the contract are fixed and represent a weighted average price that includes escalation. Prices for the next 6 years will be adjusted for escalation offset by the performance improvement savings, and prices for the last 3 years of the contract will be adjusted for escalation only.

Build-to-Order Contract. On May 7, 2001, the Defense Supply Center Columbus (DSCC) awarded a requirements type contract (SPO740-01-D-9711) to Honeywell for build-to-order items. As of September 14, 2001, 255 parts were on contract with an annual demand value of about \$6.5 million, excluding items from the Seawolf submarine program that have a lifetime buy value of about \$280,000. The contract has three 1-year base years and three 3-year options, for a total possible contract length of 12 years. The estimated contract value is \$52.8 million. The contract identifies economic order quantities and is designed to procure items for stock in Defense depots.

Replenishment Contract. On May 1, 2001, DSCR awarded a requirements type contract (SPO400-01-D-9402) to Honeywell for replenishment items. The contract includes a base period of 3 years and three option periods of 3 years each, for a total possible contract length of 12 years. The replenishment concept has been the most difficult to execute and as of October 31, 2001, there were only 16 items on contract with an annual demand of about \$1.8 million. The concept was based on the premise that Honeywell would maintain a constant flow of items with predictable demand directly to key DLA customers. Unfortunately, customer demand was erratic and rarely predictable, and key DLA customers have been reluctant to sign up to this type of support where items are “pushed” to the customer as opposed to a customer requisitioning an item or “pulling” from DLA or contractor inventory. The replenishment concept also requires a significant amount of administrative effort relating to manual input and planning. DLA is proceeding with the concept on a limited basis and currently shipping items into its inventory using the scheduled constant flow of material. Although shipping parts into DLA inventory was not the intended approach, it may prove beneficial especially for items with long production lead times and may also enable DLA to reduce inventory levels. However, the amount of administrative effort and manual intervention by both

¹ The contract includes 326 contract line items (parts); however, 4 parts have been removed.

DLA and Honeywell needs to decrease to make the replenishment concept sustainable. Therefore, proceeding with the replenishment contract on a limited basis is a practical strategy.

Alpha or One-Pass Cost-Based Pricing

DLA and Honeywell agreed that using cost-based pricing would apply to both commercial and noncommercial sole-source items. Honeywell management allowed the cost-based pricing process to further improve by adopting alpha or one-pass pricing. In one-pass pricing, a team of Government pricing experts consisting of DLA contracting officers and price analysts, cognizant DCAA representatives, and representatives from the Inspector General, DoD, meet with Honeywell staff to review cost data in the automated Honeywell estimating system. The items are priced and then placed on one of the three long-term contracts. The one-pass pricing process:

- allows DoD and Honeywell pricing teams to reach agreement on cost elements concurrently and determine prices in real time,
- validates whether items have been placed in the correct purchasing environment,
- provides flexibility to move parts between contracts for the desired level of service based on best value,
- allows the team to identify and price items at economic order quantities, and
- provides the team a unique opportunity to directly impact judgmental decisions made when pricing items.

Honeywell's agreement to use the one-pass pricing process for sole-source items dramatically improved the level of trust and cooperation between both parties.

Wait Time Savings

Wait Time. The catalog contract requires improved delivery over current DLA performance, while the build-to-order and replenishment contracts do not. The latter contracts rely on the Defense supply system because parts are managed through the depot system. DSCR reported in June 2000, that for RIT candidate items, the average wait time² was about 23 days, and that 8 percent of the requisitions were not filled within 90 days. We also reviewed logistics response times for 18 different catalog customers (1,122 FY 1999 requisitions) and found the average logistics response time (from the depot) to be 29.9 days (median 8 days). Although the catalog contract does not provide a direct comparison to wait time, reductions in days from receipt of order to item shipment should

² Average wait time is the elapsed time (in days) from customer requisition to receipt of material ordered from the DoD wholesale system.

translate to reduced logistics response times. For each day logistics response time is reduced, DLA reduces supply system costs because fewer parts are needed in inventory.

As of July 31, 2001, Honeywell shipped 66.6 percent of the items representing 57.8 percent of the dollars on the catalog contract within 5 days, and 90.5 percent of the items representing 77.1 percent of the dollars within 15 days. These performance statistics include a 6-month ramp-up period for individual parts based on the date the part was added to the contract when shipments later than 15 days are not counted. The total value of the parts on the catalog contract was about \$6.7 million, while the amount used to evaluate days to ship totaled about \$4.4 million.

Figure 2 shows the numbers of catalog items shipped by Honeywell by specific response times. "Booked" items have not yet shipped.

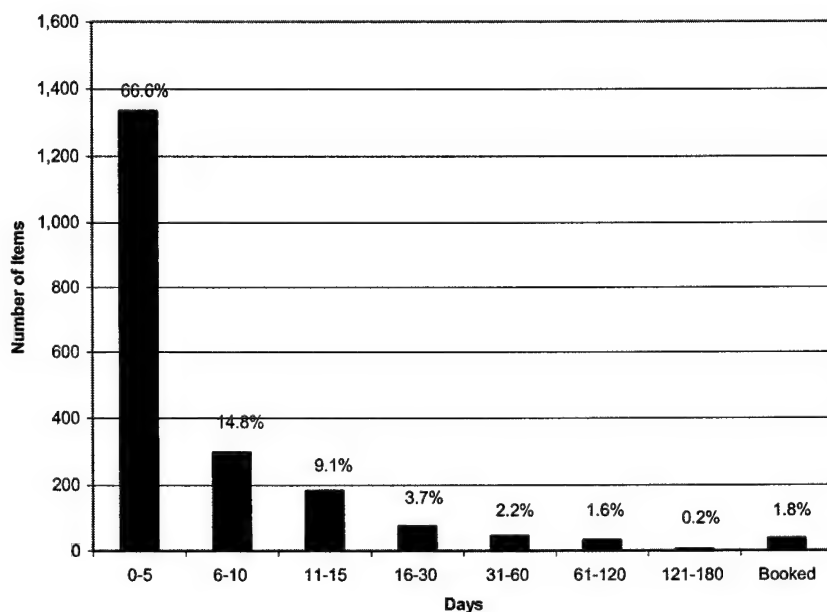


Figure 2. Days to Ship for Catalog Items (Percentage of Items Ordered)

Figure 3 shows the total values of the catalog items that Honeywell shipped by specific response times.

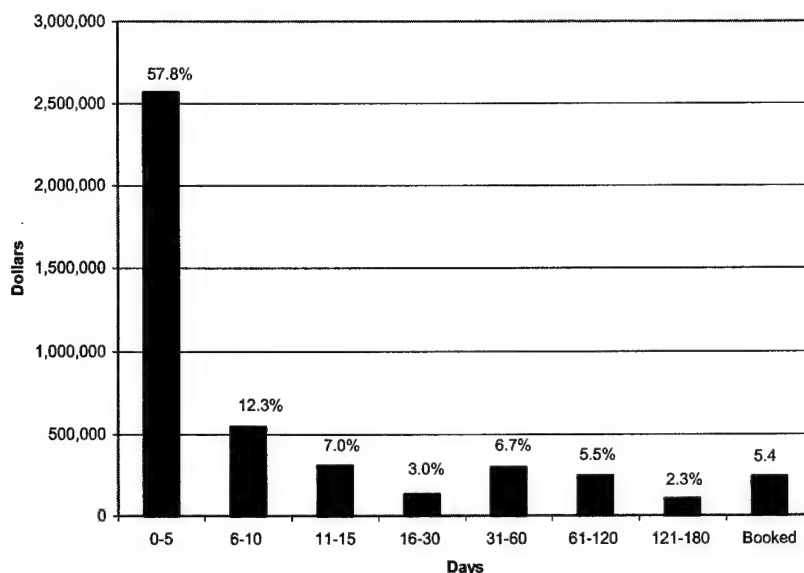


Figure 3. Days to Ship for Catalog Items (Percentage of Contract Dollars)

In August and September 2001, Honeywell reported that some technical problems had occurred when placing orders for military-specific items on the catalog contract in its commercial distribution center. The technical problems resulted in a significant drop in the fill rates (orders shipped within 15 days) for the period (64.3 percent for August and 62 percent for September). In October 2001, Honeywell reported the problems were corrected and that monthly fill rates should return to the 80.3 to 94.2 percent levels achieved in the preceding 6 months.

Administrative Lead Time. Both DoD and the contractor achieve savings by reducing administrative lead times.³ Instead of annually, or more frequently, negotiating the prices of items procured on different delivery order contracts, DLA and Honeywell now negotiate a price for an item once under one of the alliance contracts. Negotiated prices (adjusted for inflation and performance improvement on the catalog contract) are effective for the life of the contracts. For example, from 1996 to 1999, DSCC procured the same brake drum assemblies on 10 different delivery order contracts at 9 different prices. DSCC negotiated the price on each delivery order individually, and the administrative lead time on record as of the first quarter of FY 2000 was 180 days. Under the alliance catalog contract, the current administrative lead time for the item was reduced to 10 days. The Defense Operations Research and Resource Analysis Group has calculated that the average cost for a DoD inventory control point to

³ Administrative lead time is the elapsed time to place material on contract.

procure an item is about \$160 for contract actions under \$100,000 and between \$1,600 and \$12,000 for contract actions over \$100,000.

Table 1 shows the reductions in administrative lead time for catalog contract items from the first quarter of FY 1999 to the third quarter of FY 2001. The Defense Supply Center Philadelphia (DSCP) and DSCC had not made reductions in administrative lead times for items recently placed on the contract in the DLA Standard Automated Material Management System.

Table 1. Reductions in Administrative Lead Time for the Group of Items Added With Each Catalog Contract Modification (Days)							
Line Items	Effective Date	FY 1999 quarter 1	FY 2000 quarter 1	FY 2001 quarter 1	FY 2001 quarter 3	Days	Percent
1-34	June 2000	4,256	4,343	807	680	(3,576)	(84.0)
35-101	December 2000	4,373	2,366	2,273	1,299	(3,074)	(70.3)
102-125	December 2000	1,062	683	671	351	(711)	(66.9)
126-221	May 2001	9,427	9,282	9,399	4,734	(4,693)	(49.8)
222-280	July 2001	7,338	7,127	7,266	5,745	(1,593)	(21.7)
282-326	September 2001	<u>6,642</u>	<u>6,732</u>	<u>7,652</u>	<u>8,857</u>	<u>2,215</u>	33.3
Total		33,098	30,533	28,068	21,666	(11,432)	(34.5)

Table 2 shows reductions in administrative lead times for build-to-order contract items from the first quarter of FY 1999 to the third quarter of FY 2001.

Table 2. Reductions in Administrative Lead Time for the Group of Items Added With Each Build-to-Order Contract Modification (Days)							
Line Items	Effective Date	FY 1999 quarter 1	FY 2000 quarter 1	FY 2001 quarter 1	FY 2001 quarter 3	Days	Percent
1-60	May 2001	6,577	7,060	8,092	3,377	(3,200)	(48.7)
61-183	June 2001	13,859	13,779	14,156	13,615	(244)	(1.8)
184-256	September 2001	<u>8,672</u>	<u>8,965</u>	<u>10,336</u>	<u>11,414</u>	<u>2,742</u>	31.6
Total		29,108	29,804	32,584	28,406	(702)	(2.4)

Table 3 shows reductions in administrative lead times for replenishment contract items from the first quarter of FY 1999 to the third quarter of FY 2001.

Table 3. Changes in Administrative Lead Time for Replenishment Items (Days)							
Line Items	Effective Date	FY 1999 quarter 1	FY 2000 quarter 1	FY 2001 quarter 1	FY 2001 quarter 3	Days	Percent
1-17	May 2001	2,073	2,567	2,677	697	(1,376)	(66.4)

Defense Inventory

Catalog Contract. The catalog contract has significantly reduced Defense supply inventory. For the first 221 contract line item numbers (CLINs), Defense supply inventory was reduced from \$13.9 million in the first quarter of FY 1999 to \$4.1 million in the third quarter of FY 2001, a reduction of \$9.8 million or 70.9 percent.

Figure 4 shows the reduction in Defense supply inventory for items on the catalog contract.

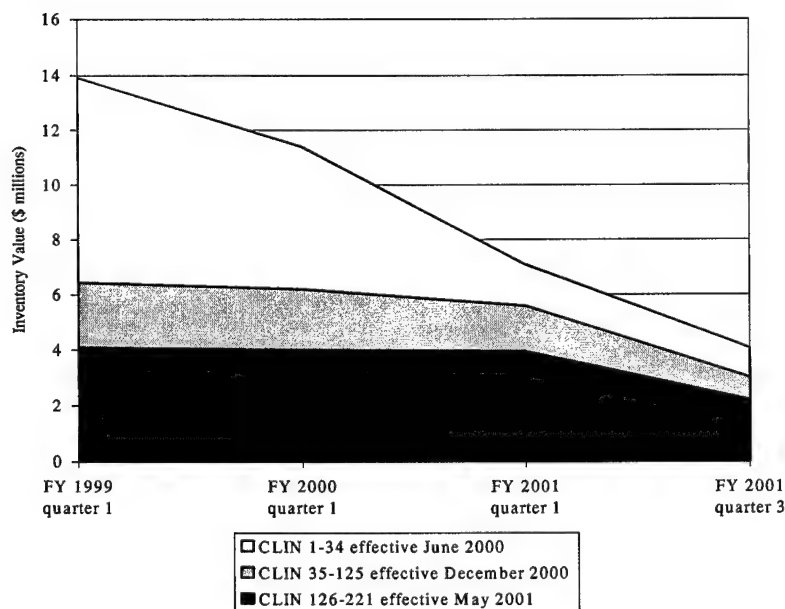


Figure 4. Decreases in Defense Supply Inventory for Catalog Contract Items

Figure 5 shows Defense supply inventory increased from \$3.2 million in the first quarter of FY 1999 to \$5.1 million in the third quarter of FY 2001, an increase of \$1.9 million for items that were placed on the catalog contract in July 2001 and September 2001. This Defense inventory will also be reduced as the Defense depots issue items from on-hand stocks and supply support transitions to the contractor.

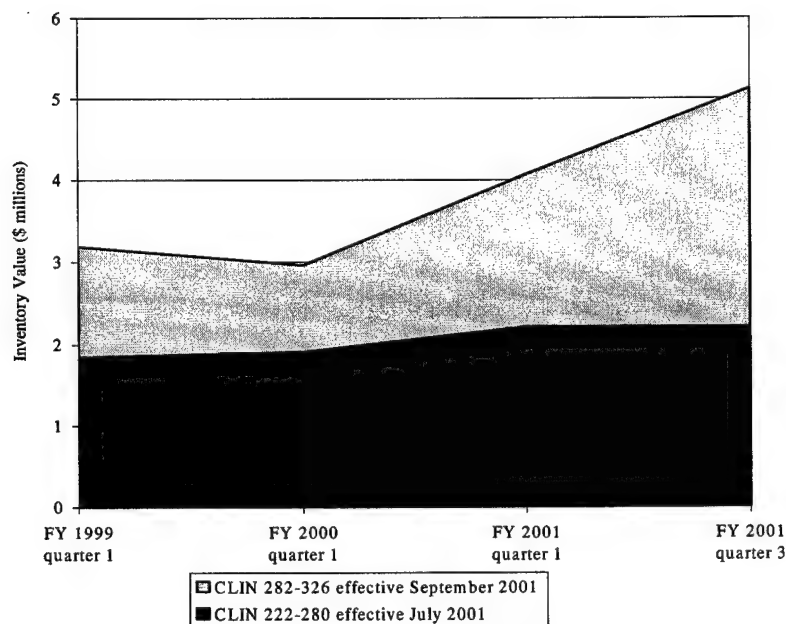


Figure 5. Increases in DoD Supply Inventory for Items Recently Placed on the Catalog Contract

The increase in DoD supply inventory shown in Figure 5 occurred prior to the items being placed on the catalog contract and as items are drawn down and transitioned to contractor support, the DoD inventory should begin trending down.

Build-to-Order and Replenishment Contracts. The build-to-order and replenishment contracts have not yet shown significant reductions in the value of Defense inventory because items were only recently placed on contract and Defense depots still stock the parts. However, reductions in administrative lead times and economic order quantities negotiated on the build-to-order contract should eventually lower the value of Defense inventory in the depots.

Tables 4 and 5 show the value of Defense inventory for build-to-order and replenishment contract items. Build-to-order contract line items 61-183 represent support for the Seawolf submarine program that was not previously supported by DLA.

Table 4. Increase in Supply Inventory for Build-to-Order Items

Line Items	Effective Date	FY 1999 quarter 1	FY 2000 quarter 1	FY 2001 quarter 1	FY 2001 quarter 3	Amount	Percent
1-60	May 2001	\$2,761,002	\$2,984,352	\$3,574,807	\$4,068,752	\$1,307,750	47.4
61-183	June 2001	100	3,443	31,487	131,932	131,832	131,832.0
184-256	September 2001	791,906	684,987	2,350,515	2,661,698	1,869,792	236.1
Total		\$3,553,008	\$3,672,782	\$5,956,809	\$6,862,382	\$3,309,374	93.1

Table 5. Decrease in Supply Inventory for Replenishment Items

Line Items	Effective Date	FY 1999 quarter 1	FY 2000 quarter 1	FY 2001 quarter 1	FY 2001 quarter 3	Amount	Percent
1-17	May 2001	\$2,448,035	\$2,555,154	\$2,241,332	\$2,395,596	(\$52,439)	(2.1)

Customer Prices

DoD organizations could save about \$59 million for the first 594 items placed on the 3 alliance contracts over the 12-year period of performance (catalog 322 items--\$50.7 million, build-to-order 256 items--\$4.2 million, and replenishment 16 items--\$4.1 million).

We calculated the savings by comparing the prior prices from recent Honeywell contracts other than the strategic supplier alliance contracts. The recent procurement prices had also dropped significantly from earlier commercial and priced-based prices. For example, the unit price for a shutoff valve assembly was \$3,307.08 on an October 2000 contract awarded by the DSCC; the supply center had paid \$4,555.61 in March 1997 and \$5,289.34 in October 1996. The recent price had decreased by 27.4 and 37.5 percent, respectively, from the earlier prices.

Catalog Contract. The catalog contract has significantly lowered prices for DLA customers. For the first 322 contract line items (326 contract line items but 4 items have been removed), annual customer prices decreased by \$2.4 million, from \$20.5 million to \$18.1 million, or 11.8 percent. In fact, prices for 222 of the 322 parts on contract or 69 percent decreased from prior year prices. For example, in February 1999, DSCR purchased 39 torsion plane shafts at a unit price of \$467. The DLA standard unit price (customer price) for the part was \$606.17. Because the item was purchased in 1999, we added 2 years of inflation (3 percent) for a current year price of \$624.36. The

negotiated price on the catalog contract for the part was \$144.70 (good through June 2003). With the addition of the DSCR direct vendor delivery cost recovery rate of 12.1 percent to the cost of the item, the final customer price is \$162.21, or a reduction from the previous price of 74 percent. We used the FY 2001 third quarter annual demand quantity (annual demand quantities are based on the past 4 quarters demand) to calculate total annual prices and differences. We followed this procedure for our analyses of each part.

Table 6 shows the annual saving for the first six groups of parts negotiated on the catalog contract.

<u>Line Items</u>	<u>Effective Date</u>	<u>Annual Customer Price</u>		<u>Difference</u>	
		<u>Catalog</u>	<u>Prior Year*</u>	<u>Amount</u>	<u>Percent</u>
1-34	Jun-00	\$ 6,325,008	\$ 6,953,441	\$ (628,433)	(9.0)
35-101	Dec-00	2,723,117	3,529,829	(806,712)	(22.9)
102-125	Dec-00	58,687	59,568	(881)	(1.5)
126-221	May-01	4,621,713	5,143,239	(521,526)	(10.1)
222-280	Jul-01	1,701,121	2,051,032	(349,911)	(17.1)
282-326	Sep-01	2,654,346	2,774,533	(120,187)	(4.3)
Total		\$18,083,992	\$20,511,642	\$(2,427,650)	(11.8)

*Prior year prices were escalated using the Aircraft Procurement, Navy (APN) inflation indices (base year: mid-FY 2001)

To calculate the total catalog contract savings, we used the Data Resource Institute escalation projections used in the contract and applied the escalation factor to the DLA standard unit price total for the items. We used the same escalation projections to calculate catalog contract prices but reduced the figures by the price improvement figures negotiated in the contract to arrive at a net change amount.

Table 7 shows the impact of the price improvement savings over the life of the catalog contract. DLA customers will save about \$50.7 million or 20.6 percent over prior prices for the first 322 contract line items.

Table 7. Catalog Contract Price Improvement Savings							
<u>CY</u>	<u>Price Improvement (percent)</u>			<u>Customer Prices</u>		<u>Difference</u>	
	<u>Escalation</u>	<u>Gross**</u>	<u>Net</u>	<u>Catalog</u>	<u>DLA SUP***</u>	<u>Amount</u>	<u>Percent</u>
2001					\$ 20,511,642		
2002	2.8			\$ 18,083,992	21,085,968	\$ (3,001,976)	(14.2)
2003	3.3	(3.0)	0.3	18,138,244	21,781,805	(3,643,561)	(16.7)
2004	3.5	(2.5)	1.0	18,319,626	22,544,168	(4,224,542)	(18.7)
2005	3.2	(2.0)	1.2	18,539,462	23,265,581	(4,726,120)	(20.3)
2006	3.3	(1.5)	1.8	18,873,172	24,033,346	(5,160,173)	(21.5)
2007	3.4	(1.0)	2.4	19,326,128	24,850,479	(5,524,351)	(22.2)
2008	3.3	(0.5)	2.8	19,867,260	25,670,545	(5,803,285)	(22.6)
2009	3.3		3.3	20,522,880	26,517,673	(5,994,794)	(22.6)
2010	3.3		3.3	21,200,135	27,392,756	(6,192,622)	(22.6)
2011	3.3		3.3	21,899,739	28,296,717	(6,396,978)	(22.6)
Total	29.9*	(10.5)	19.4	\$194,770,638	\$245,439,040*	\$(50,668,402)	(20.6)

* Total represents shaded figures for comparison purposes.
 ** Gross price improvement percentages negotiated in contract.
 *** SUP- Standard Unit Price

Build-to-Order Contract. The build-to-order contract has also lowered prices for DLA customers. For the first 133 (non-Seawolf submarine) contract line items, annual customer prices have decreased \$341,983 (from \$6,836,737 to \$6,494,754) or 5.0 percent. For the 123 Seawolf contract line items, costs have decreased \$101,242 (from \$381,478 to \$280,236) or 26.5 percent. For the total 256 contract line items, contract prices for 93 parts decreased, 56 have increased, and 107 parts (primarily Seawolf submarine) had no prior history.

Table 8 shows the annual savings for build-to-order contracts items.

Table 8. Comparison of Build-to-Order Prices with Prior Year Prices						
<u>CLINs</u>	<u>Effective Date</u>	<u>Annual Customer Price</u>		<u>Difference</u>		
		<u>BTO</u>	<u>Prior Year</u>	<u>Amount</u>	<u>Percent</u>	
1-60	May-01	\$3,181,960	\$3,102,652	\$ 79,308	2.6	
184-256	Sep-01	3,312,794	3,734,085	(421,291)	(11.3)	
Annual Amount		\$6,494,754	\$6,836,737	\$(341,983)	(5.0)	
61-183*	Jun-01	\$280,236	\$381,478	\$(101,242)	(26.5)	
Lifetime Amount		\$280,236	\$381,478	\$(101,242)	(26.5)	

*Seawolf submarine items CLINs represent a lifetime buy.

DLA customers will save about \$4.2 million for the 256 parts currently on contract (\$341,983 X 12 years = \$4,103,796 + \$101,242 = \$4,205,038).

For comparison purposes, we selected the economic order quantity from the build-to-order contract based on the annual demand quantity and compared it to the prior year price. For example, we used the 23-up unit price (see Table 9) for an actuating valve arm because the annual demand quantity for the part was 27. We compared that price to the 1999 prior contract price of \$756.41 and applied the appropriate DLA cost recovery rates and escalation to the prior year prices.

Table 9 provides a clear example of the impact of one-pass pricing for items placed on the build-to-order contract. The ability to see the contractor's cost data enabled the team to price items in different quantity ranges to obtain economic order quantities. While not available for all parts, parts with price ranges enable DLA to procure economic order quantities based on the annual demand. The table also shows that DLA needs to use appropriate judgment when selecting procurement quantities. For example, either 15 or 23 items can be procured at a lower total price than 10 items.

Table 9. Quantity Price Ranges for Actuating Valve Arms

Table 9. Quantity Price Ranges for Actuating Valve Arms					
<u>Year</u>	<u>Annual Demand Quantity</u>	<u>Range</u>	<u>Quantity</u>	<u>Unit Price</u>	<u>Total Price</u>
<u>Build-to-Order Contract</u>					
2001	27	5-10	10	\$650.25	\$6,503
		11-15	15	\$402.99	\$6,045
		16-22	22	\$338.72	\$7,452
		23-up	23	\$274.48	\$6,313
<u>Prior Year Contracts</u>					
1999			12	\$756.41	\$9,077
1998			23	\$1,380.92	\$31,761

Replenishment Contract. The replenishment contract has also lowered prices for DLA customers. For the first 16 contract line items, annual customer prices decreased by \$231,910 (from \$2,020,983 to \$1,789,073) or 11.5 percent.

Table 10 shows that DLA customers will save about \$4.1 million or 16 percent for the 16 parts over the 12-year life of the contract. Because the negotiated prices were good for the 3-year base period, escalation was added to the 2002 and 2003 prior year prices.

Table 10. Comparison of Replenishment Prices with Prior Year Prices

CY	Escalation	Annual Customer Price		Difference	
		Replenishment	Prior Year	Amount	Percent
2001		\$ 1,789,073	\$ 2,020,983	\$ (231,910)	(11.5)
2002	2.8%	1,789,073	2,077,571	(288,498)	(13.9)
2003	3.3%	1,789,073	2,146,131	(357,058)	(16.6)
2004		1,789,073	2,146,131	(357,058)	(16.6)
2005		1,789,073	2,146,131	(357,058)	(16.6)
2006		1,789,073	2,146,131	(357,058)	(16.6)
2007		1,789,073	2,146,131	(357,058)	(16.6)
2008		1,789,073	2,146,131	(357,058)	(16.6)
2009		1,789,073	2,146,131	(357,058)	(16.6)
2010		1,789,073	2,146,131	(357,058)	(16.6)
2011		1,789,073	2,146,131	(357,058)	(16.6)
2012		<u>1,789,073</u>	<u>2,146,131</u>	<u>(357,058)</u>	(16.6)
Total		\$21,468,876	\$25,559,864	\$(4,090,988)	(16.0)

Honeywell Savings

The strategic supplier alliance contracts enable Honeywell to realize procurement administrative efficiencies through long-term contracts instead of negotiating thousands of orders and to increase its return on investment by providing additional services. Each of the three contracts provides a fee commensurate with the level of service provided by Honeywell. The contracts also enable Honeywell to earn higher profits if costs are reduced.

Conclusion

The DLA and Honeywell strategic supplier alliance is clearly an efficient and economical procurement and logistics support concept for sole-source commercial and noncommercial spare parts.

Appendix A. Scope and Methodology

We conducted this review from June 2001 through October 2001. To accomplish the review objective, we:

- participated on the Rapid Improvement Team with Government acquisition and regulatory officials, Change Management Center officials, and Honeywell officials;
- evaluated wait time, administrative lead times, Defense inventory, and prices for the 594 items on contract as of September 2001, with an annual demand of about \$26 million;
- participated in one-pass pricing meetings at Honeywell;
- reviewed procurement data from 1999, 2000, and 2001 supplied by the Defense Operations Research and Resource Analysis office from the DLA Standard Automated Material Management System to determine annual demand quantities, mean acquisition unit costs, standard unit prices, inventory levels, and administrative lead times;
- reviewed procurement history data from the Haystack procurement system to verify the mean acquisition unit costs supplied by the Defense Operations Research and Resource Analysis Group;
- used Aircraft Procurement, Navy inflation indices (base year: mid-FY 2001) to inflate prior year customer prices to current years and the escalation figures used in the contract from the Data Resource Institute to calculate future year prices;
- reviewed the contracts, Cost Accounting Standards waiver, and other contract documentation; and
- met with DLA and Honeywell officials to discuss the results of the strategic supplier alliance.

This report was not an audit. We did not meet the government auditing standard for appearance of independence because we actively participated and continue to participate on the DLA/Honeywell Strategic Supplier Alliance team. However, our primary objective for participating on the strategic supplier alliance was to advise DLA in implementing recommendations made in Inspector General, DoD, Reports No. 99-026 and 99-218. We believe that the goals of those recommendations were achieved.

General Accounting Office High-Risk Area. The General Accounting Office has identified several high-risk areas in the DoD. This report provides coverage of the Defense Inventory Management and Contract Management high-risk areas.

Use of Computer-Processed Data. To perform the work, we relied on computer-processed data from DLA and commercial sources. We queried the DLA Standard Automated Material Management System to determine requisition data and inventory levels of consumable items that are managed by DLA. We also obtained procurement history information from a commercial system, "Haystack Online for Windows," provided by Information Handling Services, Engineering Products Division. We compared computer-processed data from the DLA and Haystack systems with actual data from the three strategic supplier alliance contracts and nothing came to our attention that caused us to doubt the reliability of the computer-processed data.

Contacts During the Review. We visited or contacted individuals within the DoD and Honeywell. Further details are available on request.

Appendix B. Prior Coverage

During the last 5 years, the General Accounting Office has issued three audit reports and the Inspector General, DoD, has issued eleven reports discussing either prices for spare parts or Defense inventory management in the acquisition reform environment.

General Accounting Office

General Accounting Office Report No. NSIAD-00-22 (OSD Case No. 1903), "Contract Management: A Comparison of DoD and Commercial Airline Purchasing Practices," November 29, 1999

General Accounting Office Report No. NSIAD-00-1 (OSD Case No. 1885), "Defense Inventory: Improved Management Framework Needed to Guide Navy Best Practice Initiatives," October 21, 1999

General Accounting Office Report No. NSIAD-99-90 (OSD Case No. 1808), "DoD Pricing of Commercial Items Needs Continued Emphasis," June 24, 1999

Inspector General, DoD

Inspector General, DoD, Report No. D-2001-129, "Contracting Officer Determinations of Price Reasonableness When Cost or Pricing Data Were Not Obtained," May 30, 2001

Inspector General, DoD, Report No. D-2001-077, "Buying Program of the Standard Automated Materiel Management System Automated Small Purchase System: Defense Supply Center Philadelphia," March 13, 2001

Inspector General, DoD, Report No. D-2001-001, "Contract Award for the Fluid Flow Restrictor Spare Part," October 3, 2000

Inspector General, DoD, Report No. D-2000-192, "Results of the Defense Logistics Agency Strategic Supplier Alliance for Catalog Items," September 26, 2000 (September 29, 2000*)

Inspector General, DoD, Report No. D-2000-099, "Procurement of the Propeller Blade Heaters for the C-130 and P-3 Aircraft," March 8, 2000 (June 12, 2000*)

*Only redacted versions of these reports will be available on the internet at www.dodig.osd.mil/audit/reports.

Inspector General, DoD, Report No. D-2000-098, "Spare Parts and Logistics Support Procured on a Virtual Prime Vendor Contract," March 8, 2000 (June 14, 2000*)

Inspector General, DoD, Report No. 99-218, "Sole-Source Noncommercial Spare Parts Orders on a Basic Ordering Agreement," July 27, 1999 (October 12, 1999*)

Inspector General, DoD, Report No. 99-217, "Sole-Source Commercial Spare Parts Procured on a Requirements Type Contract," July 21, 1999 (August 16, 1999*)

Inspector General, DoD, Report No. 99-026, "Commercial Spare Parts Purchased on a Corporate Contract," October 30, 1998 (January 13, 1999*)

Inspector General, DoD, Report No. 98-088, "Sole-Source Prices for Commercial Catalog and Noncommercial Spare Parts," March 11, 1998 (October 13, 1998*)

Inspector General, DoD, Report No. 98-064, "Commercial and Noncommercial Sole-Source Items Procured on Contract N000383-93-G-M111," February 6, 1998 (June 24, 1998*)

*Only redacted versions of these reports will be available on the internet at www.dodig.osd.mil/audit/reports.

Appendix C. Report Distribution

Office of the Secretary of Defense

Under Secretary of Defense for Acquisition, Technology, and Logistics

Director for Acquisition Initiatives

Deputy Under Secretary of Defense (Logistics)

Director, Defense Procurement

Under Secretary of Defense (Comptroller)

Deputy Chief Financial Officer

Deputy Comptroller (Program/Budget)

Department of the Army

Auditor General, Department of the Army

Department of the Navy

Assistant Secretary of the Navy (Research, Development, and Acquisition)

Naval Inspector General

Auditor General, Department of the Navy

Commander, Naval Air Systems Command

Commanding Officer, Naval Aviation Depot, Cherry Point

Commander, Naval Supply Systems Command

Commander, Naval Inventory Control Point

Department of the Air Force

Assistant Secretary of the Air Force (Acquisition)

Assistant Secretary of the Air Force (Financial Management and Comptroller)

Auditor General, Department of the Air Force

Other Defense Organizations

Director, Defense Contract Audit Agency
Director, Defense Contract Management Agency
Director, Defense Logistics Agency
 Commander, Defense Supply Center Columbus
 Commander, Defense Supply Center Richmond
 Commander, Defense Supply Center Philadelphia

Non-Defense Federal Organizations

Office of Management and Budget
Office of Federal Procurement Policy

Congressional Committees and Subcommittees, Chairman and Ranking Minority Member

Senate Committee on Appropriations
Senate Subcommittee on Defense, Committee on Appropriations
Senate Committee on Armed Services
Senate Committee on Governmental Affairs
House Committee on Appropriations
House Subcommittee on Defense, Committee on Appropriations
House Committee on Armed Services
House Committee on Government Reform
House Subcommittee on Government Efficiency, Financial Management, and Intergovernmental Relations, Committee on Government Reform
House Subcommittee on National Security, Veterans Affairs, and International Relations, Committee on Government Reform
House Subcommittee on Technology and Procurement Policy, Committee on Government Reform

Team Members

The Contract Management Directorate, Office of the Assistant Inspector General for Auditing, DoD prepared this report. Personnel of the Office of the Inspector, DoD, who contributed to the report are listed below.

Garold E. Stephenson
Henry F. Kleinknecht
Patrick J. Nix
Joseph P. Bucsko
Ricky T. Phaison
Matthew J. Rok